



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,868	01/13/2004	Joseph P. Odenwalder	PA298B2A3D1	3404
23696	7590	04/21/2008	EXAMINER	
QUALCOMM INCORPORATED			TSE, YOUNG TOI	
5775 MOREHOUSE DR.			ART UNIT	
SAN DIEGO, CA 92121			PAPER NUMBER	
			2611	
			NOTIFICATION DATE	DELIVERY MODE
			04/21/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary	Application No. 10/756,868	Applicant(s) ODENWALDER, JOSEPH P.	
	Examiner YOUNG T. TSE	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-18 and 20-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-18 and 20-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20080402</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 19, 2008 has been entered.

Response to Arguments

2. Applicant's arguments filed March 19, 2008 have been fully considered but they are not persuasive.

Regarding claims 1, 3-18, and 20-34 rejected under 35 U.S.C. §112, first paragraph, Applicant argues that "FIG. 4 is a block diagram of modulator 104 of FIG. 2 configured in accordance with the exemplary embodiment of the invention." (Emphasis added.) More specifically, applicant recites that "various embodiments to these embodiments will be readily apparent to those skilled in the art." Referring to FIG. 4, a plurality of mixers 150a-150d are illustrated to modulate data with a code word. As such, applicant respectfully submits that it would be readily apparent to those skilled in the art to modulate "pilot data" with a code word. Moreover, applicant respectfully submits that it would be readily apparent to those skilled in the art that the claimed

Art Unit: 2611

"complex multiplier, communicatively coupled to said combiner, configured to complex multiply said combined stream with a complex pseudonoise code [would] reduce a peak-to-average ratio of the transmission" based on the description and drawings of the invention. Regarding claims 1, 3-17, 20, 23, and 34, applicant respectfully submits that it would be readily apparent to those skilled in the art to derive at the claimed subject matter based on the description and drawings of the invention.

The examiner respectfully disagrees, the detailed block diagrams of the modulator 104 of Figure 2 are shown in Figure 4, which is the present invention as now recited in claims 1, 3-18, and 20-34, not those skilled in the art as Applicant argued. Referring to claim 18 together with Figure 4, for example, claim 18 recites an apparatus comprising a plurality of modulators which are the modulators 1501, 150b, and 150c; a combiner 160 configured to combine the combined the plurality of streams of modulated symbols into a combined stream 161; and a complex multiplier which includes the block elements 162a, 162b, 164a-164d, 166a, and 166b. Claim 18 further recites that the plurality of modulators comprise a first modulator which clearly is not shown in Figure 4 configured to modulate a pilot channel encoded data (PILOT) with a first code (W0) to produce a first stream of modulated symbols; and a second modulator (one of the modulators 150a, 150b, and 150c) configured to modulate a user first channel encoded data (one of PC, BPSK, and QPSK) with a second code (one of W1, W2, and W3) to produce a second stream of modulated symbols.

Claim 29 recites the complex multiplier is configured to using a first of the combined stream 162 and an in-phase pseudonoise code component as real parts; and

Art Unit: 2611

using a second of the combined stream and a quadrature-phase pseudonoise code component as imaginary parts. However, as shown in Figure 4, clearly, the imaginary parts are using an output signal 163 which is the output of the modulator 150d through the gain adjust circuit 158b and a quadrature-phase pseudonoise code component, but not using a second of the combined stream 161 and a quadrature-phase pseudonoise code component.

Regarding claim 30, for the same reasons described in claim 29 above, the second multiplier (164b) is not configured to multiply the second combined stream by the in-phase pseudonoise code component to produce a second intermediate signal; and the fourth multiplier (164c) is not configured to multiplying the second combined stream by the quadrature-phase pseudonoise code component to produce a fourth intermediate signal. (Emphasis added.)

Claim Objections

3. Claims 29 and 30 are objected to because of the following informalities: in claim 29, line 5, “the combined streams” should be “the combined stream”. Claim 30 is objected to because it depends from claim 29. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 3-18 and 20-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims 1, 3-18 and 20-34 contain new matters which was not described in the original specification, the original disclosure of the drawings, and the original claims in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

For example, claim 18 recites an apparatus shown in Fig. 2 for generating data for transmission from a subscriber unit (100) to a base station (120), the apparatus comprising: a plurality of modulators (150b to 150d) shown in Fig. 4 of the modulator (104) of Fig. 2 configured to modulate each of a plurality of channel encoded data from the encoders (102 and 103) with an associated code (W_2 or W_3) to produce a plurality of streams of modulated symbols; a combiner (160), communicatively coupled to said plurality of modulators, configured to combine the plurality of streams of modulated symbols into two combined streams to reduce a peak-to-average ratio of the transmission; and a complex multiplier (164a to 164d and 166a to 166b), communicatively coupled to said combiner, configured to complex multiply said two combined streams with a complex pseudonoise code (PN_I or PN_Q). Wherein the plurality of modulators comprises a first modulator configured to modulate a pilot

Art Unit: 2611

channel encoded data with a first code to produce a first stream of modulated symbols. However, as shown in Fig. 4, there is no modulator used to modulate a pilot channel encoded data with a first code to produce a first stream of modulated symbols since the pilot signal is directly input to the A_0 gain adjuster 152 and is an uncoded signal. Further, the specification fails to explain that the combiner 160 is used to reduce a peak-to-average ratio of the transmission as now claimed.

Regarding claim 20, the combiner 160 does not include two adders to perform the functions as claimed. Also see claims 22, 24 and 26.

Regarding claim 23, a fourth modulator (150a) is not used to modulate a control channel encoded data with a fourth code (W_1) to produce a fourth stream of modulated symbols since the power control signal (PC) is an uncoded signal. Also see claim 25.

Regarding claim 34, it is unclear which gain adjuster is considered the gain adjuster and which gain adjusters are considered the second plurality of adjusters configured to adjust gains of each of the remaining streams to values determined relative to the gain of the first stream as shown in Fig. 4. The specification also fails to explain the operation of the gain adjusters performed the claim subject matters as now claimed.

Also see the method claims 1 and 3-17 which have similar subject matters as recited in the apparatus claims 18 and 20-34 for the same reasons described above.

Conclusion

6. This is an RCE of applicant's earlier Application No. 10/756,868. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is 571- 272-3051. The examiner can normally be reached on Monday-Friday 10:00-6:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on 571- 272-3021. The fax phone

Art Unit: 2611

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YOUNG T. TSE/
Primary Examiner, Art Unit 2611